

**REMARKS**

Reconsideration and allowance of this application are respectfully requested. Claims 1-5, 9-12 and 22-24 are cancelled. Claims 6-8, 13-21 and 25-28 remain in this application and, as amended herein, are submitted for the Examiner's reconsideration.

Claims 6, 17, and 20 have been amended to place the application in condition for allowance by incorporating the limitations previously called for in cancelled claims 9-12 and 22-24. Because the amendment essentially incorporates the limitations of the cancelled claims, no new issues that require further consideration or search are presented. It is therefore submitted that this amendment should be entered.

In the Office Action, the Examiner rejected claims 6-7, 9-11, 16-17, 20, 22-23 and 28 under 35 U.S.C. § 102(b) as being anticipated by Kawakami (U.S. Patent No. 4,598,243) and rejected claims 12-13 and 24-25 under 35 U.S.C. § 103(a) as being unpatentable over Kawakami. Claims 9-12 and 22-24 are cancelled. It is submitted that the remaining claims are patentably distinguishable over Kawakami.

The Kawakami patent describes a direct current power supply that may be powered by Ni-Cd batteries having a substantially constant output voltage until shortly before the end of the life of the battery, when the output voltage abruptly drops, or powered by alkaline-manganese batteries having an output voltage that decreases linearly over time. The power supply compares a voltage  $E_s$  proportional to the output voltage of the battery to a reference voltage  $E_r$  and when the voltage  $E_s$  is lower than the reference voltage  $E_r$ , activates an alarm. The value of the reference voltage  $E_r$  is set by the position of a switch that changes its contact point according to *the type of battery used*. The switch is *manually operated* by providing a different shaped case for each battery type. (See Figs. 1-8;

col. 3, lines 1-55; col. 4, lines 35-51; col. 5, lines 8-23; col. 6, lines 7-11 and 49-54; col. 7, lines 9-13 and 40-47). Thus, the patent describes obtaining a *reference voltage* by detecting the battery type using *the switch* and *the shape of the battery pack* and does not suggest obtaining a *capacity value* of a battery *by communicating via a communications line*.

Kawakami does not suggest:

obtaining means for obtaining a capacity value of a battery by communicating via a communications line with a battery pack that contains the battery, the battery providing power to the video camera

as called for in claim 6.

Further, because Kawakami describes setting *the reference voltage*, Kawakami does not suggest setting a *correction value* based on *the capacity value*, does not suggest that *the correction value* is a first value when the capacity value exceeds that of a battery having a first known number of battery cells, does not suggest that *the correction value* is a second value when the capacity value does not exceed that of a battery having a first known number of cells but exceeds that of a battery having a second known number of battery cells, and does not suggest that *the correction value* is zero when the capacity value does not exceed that of a battery having a second known number of battery cells.

Therefore, Kawakami does not suggest:

setting means for setting a correction value based on the capacity value, the correction value being a first value when the capacity value exceeds a first predetermined value that is the capacity value of a battery having a first known number of battery cells, the correction value being a second value when the capacity value does not exceed the first predetermined value but exceeds a second predetermined value that is the capacity value of a battery having a second known number of battery cells, the first known number of battery cells being greater than the second known number of battery cells, and the correction

value being zero when the capacity value does not exceed the second predetermined value

as recited in claim 6.

It follows that Kawakami does not suggest the combination called for in claim 6 and does not anticipate the claim.

Claims 7, 13 and 16 depend from claim 6, and each further defines and limits the invention set out in the independent claim. It follows that each of claims 7, 13 and 16 likewise defines a combination that is patentably distinguishable over Kawakami at least for the same reasons.

Claim 17 is directed to a video system that includes a video camera body having limitations similar to those set out in claim 6. Therefore, claim 17 is distinguishable over Kawakami at least for the same reasons.

Independent claim 20 is directed to a method of detecting low power in a battery that includes limitations similar to those set out in claim 6. It follows that claim 20 is patentably distinguishable over Kawakami at least for the same reasons.

Claims 25 and 28 depend from claim 20 and are distinguishable over the reference at least for the same reasons.

The Examiner also rejected claims 8, 14-15, 21 and 26-27 under 35 U.S.C. § 103(a) as being unpatentable over Kawakami in view of Lee (U.S. Patent No. 6,157,169). It is submitted, however, that the claims are patentably distinguishable over the references.

Claims 8 and 14-15 depend from claim 6, and claims 21 and 26-27 depend from claim 20. Therefore, each of claims 8, 14-15, 21 and 26-27 are distinguishable over Kawakami at least for the same reasons.

The Lee patent teaches measuring the residual capacity of a battery by detecting the *terminal voltage of a battery*, the battery temperature, and a load current of the battery. The residual capacity of the battery is then calculated *based on the detected battery voltage* and may then be corrected based on variations in the *battery temperature, the self-discharge of the battery over time, or the load current*. (See Figs. 7, 9 and 10; col. 4, lines 5-53; and col. 7, line 10 - col. 8, line 9). The reference does not suggest obtaining a capacity value of a battery *by communicating via a communications line* as called for in claims 6 and 20 from which claims 8, 14-15, 21 and 26-27 depend. Further, Kawakami does not suggest setting a correction value *based on the capacity value*, does not suggest that the correction value is a first value when *the capacity value* exceeds that of a battery having a first known number of battery cells, does not suggest that the correction value is a second value when *the capacity value* does not exceed that of a battery having a first known number of cells but exceeds that of a battery having a second known number of battery cells, and does not suggest that the correction value is zero when *the capacity value* does not exceed that of a battery having a second known number of battery cells as also defined in claims 6 and 20.

It follows that neither Kawakami nor Lee, whether taken alone or in combination, suggests or contemplates the video camera defined in claims 8 and 14-15 or the method defined in claims 21 and 26-27. Therefore, each of claims 8, 14-15, 21 and 26-27 is patentably distinct and unobvious over the references.

Finally, the Examiner rejected claims 18-19 under 35 U.S.C. § 103(a) as being unpatentable over Kawakami in view of the "Smart Battery Data Specification", revision 1.1, December 11, 1998. However, it is submitted that the claims are patentably distinguishable over the references.

Claims 18-19 depend from claim 17 and are distinguishable over Kawakami at least for the same reasons.

The "Smart Battery Data Specification" describes a system host that communicates with a smart battery to obtain detected information, such as the temperature, pack voltage, charge/discharge current, or chemistry of the battery, or to obtain predictive data, such as the battery's remaining life, that the smart battery calculates from the detected information. (See page 5, § 4.2.1). The reference, however, is not at all concerned with *setting a correction value* based on the capacity value and therefore does not suggest the setting means defined in claim 17 from which claims 18-19 depend.

It follows that neither Kawakami nor the "Smart Battery Data Specification", whether taken alone or in combination suggests or contemplates the system defined in claims 18-19, and claims 18-19 are patentably distinct and unobvious over the references.

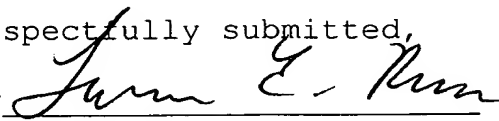
Accordingly, the withdrawal of the rejections under 35 U.S.C. § 101 and § 103 are respectfully requested.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: June 24, 2004

Respectfully submitted,

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